CLAIMS

1. An integrated circuit device, characterized in that it comprises:

- an active chip of a semiconductor material comprising an electrical circuit, the active chip having an active face provided with a plurality of electrical connection terminals and a second face, wherein the chip has a thickness of less than 100 μm, and

- a complementary chip having a first face attached to the active face of the active chip, a second face and a side surface, wherein the complementary chip has a plurality of recesses, each recess extending through the whole thickness of the complementary chip and extending from above a contact terminal to said side surface, the complementary chip having a larger thickness than the active chip.

2. An integrated circuit device according to claim 1, characterized in that the thickness of the active layer ranges from 5 to 50 μm.

3. An integrated circuit device according to claim 2, characterized in that the thickness of the complementary layer ranges from 100 to 200 μm.

4. An integrated circuit device according to any of claims 1 to 3, characterized in that the complementary chip is formed with the same semiconductor material as the active chip.

5. An electronic unit for smart cards, characterized in that it comprises:

- an active chip of a semiconductor material comprising an electrical circuit, the active chip having an active face provided with a plurality of electrical connection terminals and a second face, wherein the chip has a thickness of less than 100 μm,

- a complementary chip having a first face attached to the active face of the active chip, a second face and a side surface, wherein the complementary chip has a plurality of recesses, each recess extending through the whole thickness of the complementary chip

and extending from above a contact terminal to said side surface, the complementary chip having a larger thickness than the active chip,

- an insulating substrate having an outer face provided with outer electrical contact pads and an inner face, the second face of the active chip being attached to the substrate inner face, and

- a plurality of electrical leads, each lead having a first end connected to a contact terminal and a second end connected to an outer contact pad and lying entirely between the plane containing the second face of the complementary chip and the insulating substrate.

6. An electronic unit according to claim 5, characterized in that the insulating substrate includes windows, each window being disposed above an outer electric contact pad.

7. A smart card comprising an electronic unit according to claim 5.

8. A method for manufacturing an integrated circuit device from:

- an active chip of a semiconductor material comprising an electrical circuit, the active chip having an active face provided with a plurality of electrical connection terminals and a second face, and

- a complementary chip having a first face, a second face and a side face, the complementary chip including a plurality of recesses, each recess extending through the whole thickness of the complementary chip,

wherein the method is characterized in that it comprises the following steps:

- an attachment step wherein the first face of the complementary chip is attached to the active face of the active chip so that a recess of the complementary chip extends from above a contact terminal of the active chip to the side surface of the complementary chip; and

- an etching step wherein the active chip is etched from its second face so as to provide it with a thickness of less than 100 µm.